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[ABSTRACT.]

ON THE OCCULTATIONS OF JUPITER (VISIBLE IN 1889);  
AND ON THE ECLIPSES OF SATELLITE IV.

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BY CHARLES B. HILL.

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Mr. HILL spoke of the various phenomena of *Jupiter's* satellites, etc., of special interest, and called the attention of members especially to

*The Eclipse (reappearance) of Satellite IV:*

1889, August 18, at 8h. 37m., P. s. t.; and to

*The Occultation of Jupiter by the Moon:*

1889, Sept. 3—*Immersion*, I contact, 5h. 32.5m., P. s. t.

II “ 5h. 34.5m., “

*Emersion*, III “ 6h. 26.0m., “

IV “ 6h. 28.0m., “

Angle from North Point, Imm. =  $149^{\circ}$

“ “ “ “ Emer. =  $234^{\circ}$

The above prediction is based on an approximate (graphical) computation for the position of Mt. Hamilton. The occultation will be visible in the United States generally. In California it will take place shortly before sunset, the moon being one day past *First Quarter*.

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[ABSTRACT.]

ON PHOTOGRAPHING THE CORONA IN FULL SUNSHINE;  
AND ON PHOTOGRAPHS OF THE MOON  
IN THE DAYTIME.

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BY J. E. KEELER.

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Mr. KEELER gave a brief account of the attempts that had been made to see and to photograph the corona in full sunshine, and spoke of the evidence of the eclipse photographs on the practicability of the latter experiment. It had been shown by Professor HOLDEN in the Eclipse Report of 1889 that if the intrinsic brilliancy of the daylight near the sun was 1000, the intrinsic brilliancy of the day-

light *plus* corona was not above 1002. Hence, to photograph the corona in full sunshine, we must be able to record a difference of brilliancy, a contrast, of  $\frac{1}{100}$ . The eye could detect a contrast of  $\frac{1}{10}$  only, and hence the attempt seemed hopeless, as the rays and streamers of the corona had a continuous spectrum like that of diffused daylight. He also exhibited some photographs of the moon taken in the daytime by Mr. BURNHAM, with a lens of aperture =  $\frac{3}{4}$  inch, focus = 9 inches, stop  $f/44$ , time  $\frac{1}{10}$  to  $\frac{1}{100}$  of a second. The moon was more than  $120^\circ$  from the sun at the time.

Experiments on this matter were recommended to the amateur photographers of the Society, and it was asked that successful trials might be communicated to the Lick Observatory. Photographs of the dark side of the moon before first quarter might be included in the plan. Each plate exposed should be marked with the observer's name; the aperture, stop, and plate employed; the hour and minute of exposure; the length of exposure.

Mr. KEELER exhibited some prints made on ordinary dry plates and on ortho-chromatic plates, and recommended the attention of the members of the Society to the excellent results attained by the use of the latter plates, and suggested a trial of them for pictures of the moon in the daytime, as the moon was relatively rich in light of greater wave length than F.

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## NOTICES FROM THE LICK OBSERVATORY.

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PREPARED BY MEMBERS OF THE STAFF.

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The desire is expressed, on many sides, that the Publications of the Society should contain brief notices of the work current at the Lick Observatory, because much of this work is necessarily published in Eastern and foreign journals and therefore may escape the attention of our members.

Such notices must evidently be of the briefest and most popular character, and very often can be nothing more than a reference to the title and place of publication of a paper. Even such references as these may serve, it is said, to call the attention of our members to the existence of a paper which may be of interest to several of them.

It is therefore proposed, as an experiment merely, to include in